

Notice of Allowability

Application No.

10/789,092

Examiner

Carlos A. Martinez

Applicant(s)

HAWVER, JEFFERY R.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed through 06/22/2006.
2. ☒ The allowed claim(s) is/are 1 and 3-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments (Withdrawal of Final Rejection)

1. Applicant's arguments, see pages 6-10, filed 06/22/2006, with respect to claims 1-11 have been fully considered, noted on record, and are persuasive. The final rejection of 05/08/2006 has been withdrawn.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: the prior art does not teach a printing apparatus for exposing an image onto a photosensitive medium, comprising: (a) a printhead comprising a linear array of exposure sources, each said exposure source operable at a variable intensity; (b) a shuttle for moving the printhead over the photosensitive medium in a reciprocating motion between one end of a carriage assembly and the other; (c) an encoder coupled to the shuttle mechanism for providing an index signal at each of a plurality of incremental positions of the shuttle mechanism along the carriage assembly; and (d) exposure control logic for calculating an instantaneous shuttle velocity according to index signal timing and for adjusting the variable intensity of each said exposure source according to said shuttle velocity. Nor does the prior art teach a method of printing by exposing an image onto a photosensitive medium, comprising: (a) providing a printhead comprising a linear array of exposure sources, wherein each exposure source operates at a variable intensity, and wherein said printhead is coupled to a shuttle mechanism; (b) moving said shuttle mechanism and said printhead over said photosensitive medium in a reciprocating motion between a first end of a

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carriage assembly and a second end of said carriage assembly; (c) providing an index signal at each of a plurality of increments of position of the shuttle mechanism along the carriage assembly; (d) calculating a shuttle velocity timing said index signal; and (e) adjusting said variable intensity of each said exposure source according to said instantaneous shuttle velocity.

Nor does the prior art teach a method for modulating exposure energy from exposure sources moved in a scan direction across a width of a photosensitive substrate comprising the steps of:

(a) measuring a changing instantaneous velocity of said exposure sources by obtaining a series of encoder signals, wherein each signal corresponds to a position along said scan direction; (b)

deriving a full scale correction factor for said changing velocity; (c) multiplying said full scale correction factor to said predetermined target exposure intensity; and (d) correcting said

exposure errors due to said changing instantaneous velocity, resulting in uniform exposure

density across a width of said photosensitive substrate. Nor does the prior art teach a method for

modulating exposure energy from exposure sources moved in a scan direction across a width of a

photosensitive substrate comprising the steps of: (a) measuring a changing instantaneous velocity

of said exposure sources by obtaining a series of encoder signals, wherein each signal

corresponds to a position along said scan direction; (b) deriving a fractional correction factor,

offset from a constant nominal value for said changing instantaneous velocity; (c) calculating a

correction factor by adding said derived fractional correction factor to a constant value

representative of said nominal value for said changing instantaneous velocity; (d) multiplying

said calculated correction factor to said predetermined target exposure intensity; and (e)

correcting said exposure errors due to said changing instantaneous velocity, resulting in uniform

exposure density across a width of said photosensitive substrate. Nor does the prior art teach a

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printing apparatus for exposing an image onto a photosensitive medium, comprising: (a) a printhead comprising a linear array of exposure sources, each said exposure source operable at a variable intensity; (b) a shuttle for moving the printhead over the photosensitive medium in a reciprocating motion between one end of a carriage assembly and the other; (c) an encoder coupled to the shuttle mechanism for providing an index signal at each of a plurality of incremental positions of the shuttle mechanism along the carriage assembly; (d) exposure control logic for calculating an instantaneous shuttle velocity according to index signal timing and for adjusting the variable intensity of each said exposure source according to said shuttle velocity; and (e) wherein said photosensitive medium in a stepwise fashion between printing cycles.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos A. Martinez whose telephone number is (571) 272-8349. The examiner can normally be reached on 8:30 am - 5:00 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAM
07/06/2006


HAI PHAM
PRIMARY EXAMINER